REMARKS/ARGUMENTS

The Examiner's Action of October 4, 2004, has been received and reviewed by counsel for Assignee. In that Action claims 1-16 were examined. Claims 5 and 14 were objected to as indefinite. Independent claims 1 and 10 were rejected under 35 U.S.C. § 102 as anticipated by *McNamara, et al.*, in U.S. Patent 6,687,662. All of the other claims presented for examination were rejected either under *McNamara, et al.*, or as obvious based on various stated combinations of *McNamara, et al.*, with other references.

In response to the Action, counsel has substantially amended all of the claims, submits two additional claims herewith, and has canceled several claims. Claims 5 and 14 have been rewritten in a manner believed to overcome the indefiniteness objection.

Independent claims 1 and 10 have been amended in a manner which is believed to more precisely define the claimed invention, and, in doing so, distinguish them from the cited references. The claimed invention is discussed below first, followed by a discussion of the references.

An important feature of the invention is the ability to support different modes of simulation, particularly modes with different accuracy levels or modes with different functionality, all within a single simulation model or simulation environment. Amended claims 1 and 10 are now believed to set forth this aspect more clearly than before, in particular, taking claim 1 as an example. The claim now requires that a system to be simulated is modeled by using computer code. A first simulation mode with a first accuracy level is then used to perform a simulation on at least a first portion of the simulated system. In addition, a second simulation mode is used to perform a simulation of a portion of the system to a second accuracy level which is different from the first accuracy level.

A key benefit of this invention is described in the specification, for example in paragraph 14. As stated there, the system allows a user to perform both functional and performance simulations, and allows the user to switch between the two modes as desired. (The two modes have different accuracy levels.) This allows the user to run a large program quickly in a functional mode, but to invoke a performance mode for various regions of the simulated system of particular interest when it is important to examine detailed performance issues.

Claim 2 is intended to capture this specific example by claiming that a first simulation mode is a functional simulation mode in which behavior of the system is simulated without regard to execution time to obtain information about functionality, while the second simulation mode is a performance mode in which system behavior is simulated with regard to execution time, thereby obtaining information about the performance of at least that portion of the simulation system.

The prior art references, typified by *McNamara, et al.*, do not disclose this unique functionality. *McNamara, et al.*, addresses automated design verification and that environment. As best counsel can determine, *McNamara, et al.*, does not mention or describe supporting multiple accuracy modes within a single simulation environment.

It may be that there is some confusion with respect to *McNamara, et al.* *McNamara, et al.*, discusses how their ADV method is able to accept results from a functional simulator (Figure 2), or alternatively, accept results from cycle-accurate models (Figure 3). While these results may be acceptable to the verification systems *McNamara, et al.*, describes, *McNamara, et al.*, does not address the simulation environments themselves, nor the ability of such simulation environments to operate in different accuracy modes within a single simulator.

The Office Action also refers to a number of other references. Each of these has been reviewed, and none are believed to teach the claimed invention. In particular, *Yoshino, et al.,* appears to describe the simulation of large scale systems by dividing them into smaller systems and then simulating the smaller systems in parallel. Counsel does not find any discussion in *Yoshino, et al.,* suggesting that such a system will support multiple accuracy modes in the manner claimed here.

Hellestrand, et al., another cited reference, involves the use of hardware along with software in simulation. *Hellestrand, et al.*, however, does not appear to teach different simulation modes with different accuracies.

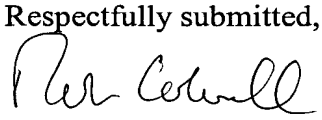
The same distinctions discussed above also apply to *Zemlyak, et al.*, *Kohnol, et al.*, and *Bailey*, as well as *Bonitz, et al.*

For the reasons discussed above, counsel believes the independent claims presented for examination herein patentably distinguish the cited references. All of the remaining claims presented depend, either directly or indirectly, from claims 1 and 10. As such, for at least that reason, those claims are also believed allowable.

In view of the foregoing, counsel for Assignee believes all claims now pending in this application are in condition for allowance. The issuance of a Notice of Allowance is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, he is invited to telephone the undersigned at 650-326-2400.

Respectfully submitted,



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